

**National Freight Transportation Workshop  
September, 2000**

**FREIGHT TRANSPORTATION POLICY, PLANNING AND PROGRAMMING IN  
PENNSYLVANIA – THEN, NOW & NEXT STEPS**

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**Introduction:**

In order to understand the Pennsylvania Department of Transportation's (PennDOT) freight program it is necessary to understand the events that brought it about and recognize that we view our approach as a "work in progress." Pennsylvania's current approach to freight transportation planning, programming and performance measurement has evolved over the past twenty years and continues to be transformed in response to changes in the transportation industry brought on by the demands of national and world commerce. Our program is to a large degree the product of the attention of informed legislators and elected officials in the Commonwealth and their recognition of the importance of freight transportation in economic growth and social development. Their willingness to enact legislation to support sound freight policies and to appropriate funds for critical freight transportation infrastructure projects has enabled PennDOT to pursue aggressive strategies to incorporate freight issues in our overall transportation planning and programming processes.

Pennsylvania's key geographical location and traditional role as a freight crossroads have also been contributing factors in freight transportation policy and program development. To gain a better perspective, a brief description of Pennsylvania's transportation system is necessary.

- Pennsylvania is known as the Keystone State for a number of reasons, not the least being our importance as a transportation crossroads. Within a 500-mile radius of Harrisburg are approximately 40 percent of the U.S. population, 60 percent of the Canadian population, 45 percent of this country's manufacturers and 41 percent of its domestic trade and service industries, strategically positioning Pennsylvania for its role in transportation and distribution. People and freight moving from the Midwest to Europe, or from the Atlantic coast to places in Tennessee, Kentucky or Missouri are most likely going to cross through Pennsylvania. Nearly 50 percent of the commercial truck traffic in Pennsylvania is moving through the state to outside destinations.
- PennDOT manages the 5th largest state-maintained highway system in the country. PennDOT owns 40,244 miles of state roadway. (Additionally, the Pennsylvania Turnpike Commission owns 505 miles of state roadway). The PennDOT total includes 5,433 miles of the National Highway System (NHS), including 1,750 miles of Interstate Highways. It is important to note that nationally the NHS represents only 4 percent of all public road mileage, but it carries 75 percent of the commercial truck traffic. The NHS provides critical links between highways and major ports, airports, rail terminals and truck terminals.

- Pennsylvania ranks first in the nation in the number of operating railroads (70) and fifth in track mileage (5,600 miles). Many of our shippers including coal, chemicals, food products and petroleum products are dependent on our rail network to move their commodities. Railroads play a key role in the economic well being of Pennsylvania.
- In aviation Pennsylvania has a system of approximately 150 airports which are open for public use in Pennsylvania. The aviation system supports the high volume movement of both passengers and airfreight regionally, nationally and internationally. This system includes major international passenger and freight terminals in Philadelphia, Pittsburgh and Harrisburg.
- PennDOT's involvement in water ports, inland waterways and maritime interests are accomplished through coordination with PennPorts, an office of the Pennsylvania Department of Community and Economic Development (DCED), who provides for programs relative to ports and waterways. PennDOT does, however, address access issues concerning all the modes of transportation including waterways. Pennsylvania's ports include the Port of Pittsburgh, the number one ranked inland waterway port in the country. Pittsburgh is also ranked as the 13<sup>th</sup> busiest port overall in the Nation, in terms of tonnage moved. The Port of Philadelphia is a deep water ocean terminal, which is ranked at 18<sup>th</sup> nationally in volume of cargo, and additionally we have the Great Lakes Port of Erie. Pennsylvania is the only state with all three of these types of port facilities – Ocean, Lake and Inland Waterway.
  - The Port of Philadelphia and Camden has an excellent reputation for servicing many cargoes that require specialized handling, including meat, fruit, steel, and forest products such as paper and pulp. Within 1,000 miles of the port are over 160,000,000 consumers: 65% of the United States' and 67% of Canada's population. In addition, over 60% of all U.S. businesses and 78% of all Canadian businesses are located within this same geographical area. All of the port's terminal facilities are located immediately adjacent to major truck routes. Over 125 port-oriented trucking companies are available to shippers, operating a total of 15,000 trucks. Pennsylvania's tunnels and rail clearances now allow higher and wider cargoes to move across the port's facilities, and have resulted in regular double-stack rail service being a feature. The terminals in the port are served by Norfolk Southern, Canadian Pacific and CSX Railroads.
  - The Port of Pittsburgh is the northeastern head of navigation for 10,000 miles of commerce along the Inland Waterway System of the United States. It includes 37 public river terminal facilities, most with intermodal connections along its 200 miles of commercially navigable waterways. These terminals handle coal, iron, steel, chemicals, general cargo, and numerous other products. The Port District is served by four interstate highways, as well as by the Norfolk Southern, the CSX, the Union, the Wheeling and Lake Erie, and the Pittsburg & Shawmut railroads.

As an organization, PennDOT's work is accomplished by 11,880 state employees supported by contractors and consultants, and suppliers. Within PennDOT's Central Office there are six

Deputy Secretaries including: Planning, Highway Administration, Local and Area Transportation (transit), Safety (driver and vehicle services), Administration, and Aviation and Rail Freight. PennDOT has 11 engineering district offices throughout the state, which oversee their share of the 52 county maintenance offices.

As can be seen from the forgoing, Pennsylvania has an extensive transportation system and the Department has been faced with the growing needs of ensuring that our transportation network can satisfy the demands being placed on it by the public and by commercial interests. The evolution of our freight transportation program over time can be addressed in the context of the Department's and the state government's response to several key external events or "defining moments." Those events, some the enacting of defining state or federal legislation and some the results of policy-

#### **DEFINING MOMENTS IN PENNSYLVANIA FREIGHT POLICY AND PLANNING**

**1980** - Staggers Act

**1984** – Rail Freight Preservation & Improvement Act

**1991** – Intermodal Surface Transportation Efficiency Act (ISTEA)

**1992** – State funding for PA/Conrail Double Stack Project

**1996** – Comprehensive Rail Freight Study updated

**1998** – Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21)

**1999** – State Transportation Advisory Committee study *Freight Movement in the Commonwealth*

**2000** – Pennsylvania Statewide Long Range Transportation Plan *PennPlan* released.

shaping research efforts, served to change the way we did business. In the case of the Staggers Act, a causal effect was generated. The deregulation of the railroads caused changes that affected Pennsylvania businesses and communities. As Conrail reacted to the deregulated environment by abandoning low volume lines to concentrate on more profitable lines, some rail-served businesses, and in some cases the community for which a business was the economic engine, were placed in potential jeopardy. The business either had to depend on high cost truck service or hope rail service could be reestablished. The regional and short lines began to fill this void, many consisting of secondary and branch lines spun off from Conrail, and played a significant role in maintaining cost-favorable freight service. Many of these new short lines had taken over lines where the Class I railroad had deferred maintenance, in some cases for an extended period of time. The smaller operator often lacked the capital reserves needed for necessary maintenance projects and businesses were again faced with the possible loss of rail freight service. The Pennsylvania General Assembly responded to this dilemma in 1984 by enacting legislation that began to define rail freight transportation policy in the Commonwealth and provided PennDOT with the authority and funding necessary to develop viable rail freight planning and programming.

The *Rail Freight Preservation & Improvement Act* established the Rail Freight Advisory Committee. Besides the Pennsylvania House and Senate Transportation Committee Majority and Minority Chairmen, the following areas are represented on the Rail Freight Advisory Committee: two representatives of Class 1 railroad companies; three representatives of

regional/short line operation; six representatives of rail shippers each representing the following: Coal, Steel, Lumber, Intermodal, Chemical, and Food Products/Agriculture; one representative from the Pennsylvania Chamber of Commerce; two representatives of regional/local economic development groups; two representatives of regional/local planning commissions; and one representative of rail contractors/suppliers. The committee is charged with the responsibilities to advise and comment on a comprehensive rail freight study, to advise on all phases of the rail freight transportation program and to propose methods, strategies or technologies for improving rail freight transportation services, systems or facilities. The committee reports to the Governor, members of the General Assembly and the State Transportation Commission. The Act also established the Rail Freight Assistance Program to provide operating subsidy grants and loans to railroad companies, transportation organizations or municipalities for providing essential rail freight services or to defray the cost of accelerated maintenance projects performed on rail lines within the Commonwealth. It also provided authority for the Bureau of Rail Freight, Ports and Waterways to purchase rail lines to ensure continued service. During the 1980's a number of abandoned Conrail lines were purchased with the cooperation and funding support of the Federal Railroad Administration. In addition to managing the grant program and state owned rail lines, the Bureau of Rail Freight, Ports and Waterways was, and remains, charged with the responsibility for undertaking studies and marketing activities designed to foster the most efficient utilization of rail freight transportation services, systems and facilities.

ISTEA elevated goods movements into the public policy arena with a focus on state DOTs and regional planning agencies. ISTEA's emphasis on the economic importance of freight transportation brought freight interests to the table in the state and regional planning and programming processes. PennDOT embraced this change. The increased shipper and carrier industry participation in the processes resulted in the Commonwealth joining a public/private partnership to establish a cross-state double stack rail capability, expanding federal/state funding for nontraditional "freight projects" and developing a multi-modal transportation policy plan. The increased consideration of freight issues and the impacts of multi-modal approaches to seeking solutions to capacity problems have led to an increase of regional and statewide freight transportation initiatives. During the 1990's we expanded our planning vision and role into a total transportation system, addressing all modes and the needs for intermodal connectivity. This shift in our planning paradigm has and continues to change how we respond to today's challenges and how we view the transportation issues that will affect Pennsylvania.

The 1996 update of Pennsylvania's Comprehensive Rail Freight Study and state rail plan addressed the changes brought about by ISTEA and sought to coordinate rail planning issues between regional planning agencies to create better balance in the statewide program. The plan addressed rail freight policy and program issues in the context of the state's rail system role in a multi-modal transportation network necessary to meet public needs for mobility and economic wellbeing. Another product of the study was a detailed manual providing guidance on rail freight planning. With the enactment of TEA-21 carrying forward and expanding the freight initiatives begun in ISTEA, the Pennsylvania State Transportation Advisory Committee undertook a study to discover ways to improve the Commonwealth's transportation system to allow freight shippers and carriers to move freight more easily. The study and its recommendations presented a critical review of options and needs to be addressed in integrating

the use of various modes to efficiently and economically transport freight. Of particular note, the study found that while the highway system was critical to goods movements, with 80% of the volume shipped by truck, we could not expect our road system capacity to grow at the same rate as the anticipated increases in commercial traffic. The approach suggested was to ensure key intermodal links are established and are adequate to meet volume needs, and to target improvements in capacity where they would have the greatest overall impact on the entire transportation system.

Building on the initial Statewide Long-Range Transportation Policy Plan, and using recommendations developed in the Freight Movements Study, the Department promulgated the PennPlan. Released in January 2000, the PennPlan is Pennsylvania's new Long Range Transportation Plan looking out 25 years, the plan is a blueprint for all modes and how these modes will interact and interconnect to shape the state's transportation system. The Plan links broad policy goals and specific action item measures. The PennPlan identifies 28 key regional and statewide multi-modal corridors. It does not, however, address specific projects, but rather identifies transportation directions towards meeting policy goals. Freight transportation issues and considerations are an integral part of the Plan. Additionally, the Bureau of Aviation is currently in the process of doing a macro-level air cargo needs study for Pennsylvania as a part of the Commonwealth's aviation system planning effort and the PennPlan.

Within the framework of this background we will attempt to address the three specific questions posed by the Federal Highway Administration:

1. How does Pennsylvania approach freight transportation planning, policy and programming?
2. How are private industry and their needs incorporated into decision making for freight transportation improvements? What is successful and what isn't?
3. What has been your experience with performance measures, what do you use, and what do you think are the most successful approaches to freight performance measures?

### **1. How does Pennsylvania approach freight transportation planning, policy and programming?**

#### **Our Current Process**

The freight transportation policy, planning and programming framework includes Federal, State, Regional, County, Local and private sector representatives. The State Transportation Advisory Committee, the Rail Freight Advisory Committee, the Motor Carrier Advisory Committee and regional planning organizations provide input to the State Transportation Commission, the General Assembly, the Administration and the Department.

Policy development initiatives done within the Department includes oversight by the Department's Strategic Management Committee, which is comprised of the Secretary of Transportation, the six Deputy Secretaries, the Director of the Policy Office, the Chief Counsel and other key executive staff members. The approach to policy development and planning initiatives is driven by the Governor's "Moving Pennsylvania Forward" strategic goals. The

linkage of freight transportation and economic development has been recognized as an important component supporting those goals.

In his 1999 testimony before the House Transportation and Infrastructure Committee, Mr. Alan E. Pisarski, a nationally recognized expert in passenger and freight policy and statistics, suggested several key policy and planning issues. They were: **International Competitiveness** that requires the expansion of interstate trade corridors; **Operations Improvements** needed to expedite traffic flows and increase capacity of our highway systems, and **Metropolitan Capacity** for both passengers and freight. PennDOT's policy approach recognizes that these are indeed critical concerns, particularly from a national view. From a Pennsylvania perspective, we are approaching them within the following framework:

- Maintenance of the existing system;
- Selected Capacity Expansion; and
- Competitiveness through total transportation system planning (multi-modal/intermodal).

These Departmental objectives are key elements within the PennDOT strategic agenda and are multi-modal and intermodal in scope. Our planning efforts, including freight transportation, are accomplished in a multi-level partnership. The planning community includes Federal, State, Regional, County, Local and private sector representatives, all working in a cooperative and collaborative partnership. Much of our planning process is dictated by federal and state laws and those statutes mandate the inclusion of participants in the process, including elected officials, regional and local transportation officials and the public.

Pennsylvania's Act 120 of 1970 established PennDOT and the State Transportation Commission (STC). The STC is comprised of 15 members and meets quarterly to address the condition and

**COMPOSITION OF THE STC:**

- Secretary of Transportation
- 4 members of the Legislature
  - Majority and Minority member of House Transportation Committee
  - Majority and Minority member of Senate Transportation Committee.
- 10 other members are appointed by the Governor and approved by Senate for 6-year terms

performance of Pennsylvania's transportation system. The STC is charged with two very specific purposes: (1) to set PennDOT's policy direction through the Twelve Year Transportation Program of projects, and (2) to adopt the Twelve Year Program biennially and submit it to the Governor and General Assembly.

TEA-21 reauthorized programs and planning requirements established in

the Intermodal Surface Transportation Efficiency Act (ISTEA). The current statutes require Metropolitan Planning Organizations (MPOs) and the Commonwealth to submit Long Range plans looking out 20 to 25 years. Additionally, Transportation Improvement Programs (TIPs) reflecting specific project approvals must be prepared by MPOs and rural planning agencies, and combined into a Statewide Program or STIP. The list of projects prepared by MPOs and the rural areas of the state in the TIPs and STIP is required to cover a three-year period. However, in

Pennsylvania we use a four-year window to maintain consistency with the first four-year period of the Twelve Year Transportation Program.

In accordance with federal law much of our planning process is done in a “bottoms up” manner. The MPOs, Local Development Districts (LDDs) and remaining independent counties are the key participants in programming projects from the local perspective. It is they who translate public input into the programming process. In Pennsylvania, the LDDs and independent counties operate similar to an MPO in the rural areas of the state. They previously were not mandated by legislation; however, PennDOT proactively established a uniform planning process beginning in 1992 to cover all areas of the state not under an MPO. Subsequently, TEA-21 established a requirement for the development of a rural area participation in the planning process. Pennsylvania was ahead of the game in this regard. Both the MPOs and LDDs coordinate the planning and programming of projects with PennDOT. The members of these organizations include local elected officials such as County Commissioners, mayors, township supervisors; and transportation agencies such as transit agencies and airport and rail authorities. Additionally, there are regional freight task forces established at the MPOs in Philadelphia, Pittsburgh and Reading which bring representatives of all the modes together to provide regional freight input. These regional freight forums provide input to the MPO Technical Committee and Board regarding local freight policy issues and potential freight projects for consideration for inclusion in the MPO TIP. Efforts are underway to expand this regional freight approach to other areas of the state with significant freight interests.

Some freight initiatives developed through this planning and programming process during the 1990’s included:

- Created a doublestack rail corridor across Pennsylvania by removing overhead clearance restrictions. This effort, a joint effort with Conrail, has made the Port of Philadelphia a more desirable port of call and increased the traffic moving through the port without adding to congestion.
- Worked with our regional MPO in Southeastern Pennsylvania and the Port of Philadelphia on projects to improve highway access to the port from the I-95 Corridor.
- Planned and partnered with the U. S. Air Force and a local government to share the costs to provide improved freight access to the Pittsburgh International Airport and an adjacent Air National Guard facility.
- Partnered with the Department of Defense to build a truck access road connecting the Defense Distribution Center East, in New Cumberland to the Pennsylvania Turnpike and to I-83. This effort reduced congestion on several local roads, while increasing the flow of truck traffic to and from the Depot complex.

At the state level, added policy input, planning, programming and project identification are also addressed. The State Rail Advisory Committee has responsibility for statewide rail issues. Pennsylvania also has formed a Motor Carrier Advisory Committee to address motor carrier issues. There are also state-level associations, such as the Keystone State Rail Association and the Pennsylvania Motor Truck Association that address freight transportation-related issues in coordination with the Department, the legislators and advisory committees.

Freight projects are advanced by way of the Rail Freight Assistance Program (RFAP), Transportation Improvement Programs, Statewide Transportation Improvement Programs, the Commonwealth's Twelve Year Transportation Program, and the State Capital Budget. The funding streams used to program and advance freight transportation improvements include state, local and federal. Federal funding sources include STP, CMAQ, NHS, discretionary programs and Planning and Research funds. State funds include Pennsylvania General Fund appropriations for the Rail Freight Assistance Program. There are also a number of rail freight projects that receive General Fund revenues through identification in the state Capital Budget and appropriations process. Some specific Highway Rail at-grade crossing projects are identified in the Capital Budget and are eligible for state Motor License Fund support in addition to Title 23 USC, Section 130 funding programmed for other highway rail crossing projects identified through the normal planning and programming process.

The Rail Freight Assistance Program (RFAP) provides financial assistance for investment in rail freight infrastructure. The intent of the Program is (1) to preserve essential rail freight service where economically feasible and (2) preserve or stimulate economic growth through the generation of new or expanded rail freight service. The Bureau of Rail Freight, Ports & Waterways is charged with the administration of monies allocated from the Commonwealth's General Fund to the RFAP. Financial assistance is available on a matching grant basis to owners and users of rail freight infrastructure whose proposals, at a minimum, meet certain project eligibility requirements. The Bureau is responsible for the evaluation of grant applications and the awarding of state financial assistance based upon an objective process that serves the legislative intent of the RFAP and promotes the public interest.

RFAP grants can be used for the following:

- **Maintenance/Rehabilitation Projects:** The replacing of ties, rails, plates, turnouts, and other track materials, structural materials and additional ballast to restore, improve, or maintain an existing railroad line to the level necessary for safe operation or use. The project must have an estimated useful life of at least five years but can not include acquisition cost of land, rights of land, buildings, or building materials to construct a new building. Maximum state funding for maintenance projects is \$300,000 or no greater than 75% of the actual total project cost, whichever is less.
- **Construction Projects:** The acquisition cost of purchasing ties, rails, ballast, other track materials, and structural materials in sufficient quantity to construct a railroad line (where none exists) or facility to a level necessary for the operation or use. The project must have an estimated useful life in excess of five years, but cannot include acquisition cost of land, rights of land, buildings, or building materials to construct a new building. Maximum state funding for construction projects is \$100,000 or no greater than 50% of the actual total project cost, whichever is less.
- **Combination Maintenance/Construction Projects:** This is a combination maintenance/rehabilitation and construction projects as described above. However, the maintenance/rehabilitation portion of the project must be dependent on the construction



portion of the project or vice versa.

Pennsylvania's Rail Freight Assistance Program (RFAP) is normally divided into two funding periods. The first funding period has an April 15 cut-off, with applicants competing for approximately \$7 million in funding. The second funding period has a September 30 cut-off. Those applications, along with the remaining eligible non-funded applications from the first funding round, compete for approximately \$1.5 million in funding. An applicant can only submit one application for one project during the entire application period. However, an applicant will be permitted to submit another application if they withdraw their original application prior to the Bureau's site evaluation of the original proposed project. The application process requires the applicant to coordinate with appropriate local municipalities, PennDOT Engineering Districts and regional planning organizations to ensure the requested projects are consistent with local land use and transportation plans and policies, regional plans and TIPs and are included as candidates for the Twelve Year Transportation Program. The eligible project application information is entered into the Department's Multi-modal Project Management System. The project information is then available to the Center for Program Development and Management staff for inclusion in the Twelve Year Program and TIP/STIP. The information is also available to PennDOT Engineering District staff, allowing them to prepare for their role in project delivery. The Bureau presents its selection recommendations to the State Transportation Commission (STC) for approval and all applicants are notified of their funding status upon approval by the STC. Approved projects are included in the Twelve Year Transportation Program and the appropriate TIP(s) and STIP.

The Bureau of Rail Freight, Ports and Waterways also manages Capital Budget projects funded through the General Fund. The Pennsylvania General Assembly normally develops a Capital Funding Project Bill every two or three years identifying specific capital projects, including rail freight and authorizing funding for these specific projects. The funding authorization normally has a four-year life. There is generally approximately \$10 million appropriated annually for the Bureau to apply toward the completion of the rail freight projects. Project programming and delivery is accomplished in the same manner as the RFAP grant program.

**EXAMPLES OF PROJECTS INELIGIBLE FOR RFAP GRANTS:**

- Project where there is only passenger excursion on the line.
- Projects where the track condition far exceeds requirements for its current FRA operating class to support given traffic.
- Projects where the work was completed prior to the Bureau's site evaluation of the proposed project.
- Projects where the work was started without the Bureau's written approval.
- Projects where the RFAP competitive bid requirements were not followed.
- Where more than 1 project was submitted for the same railroad.

As a result of the Freight Movement Study and development of the PennPlan we are now pursuing a number of freight transportation initiatives:

- Aggressive pursuit of federal funding in support of the TEA-21 Corridors Program to allow for capacity improvement. (In June 2000 Pennsylvania received \$600,000 in funding grants under the TEA-21 Corridor and Border Program for two freight-related projects. A Water Transportation Technology Improvements Study for Port of Pittsburgh, and a Wilmington, DE to Harrisburg, PA corridor study including freight operations.)
- Expand on our Long Range Transportation Plan to include consideration of how to identify specific corridor needs over time to meet mobility requirements. (A Request for Proposal for a 2-year \$500,000 SPR funded study to be released by December 2000.)
- Continue to work with CSX and Norfolk Southern as they take over Conrail's system to plan mutually beneficial intermodal projects and added doublestack capability that will aid to absorb added freight traffic in Pennsylvania, while at the same time mitigating the growth of truck traffic on already congested routes. (NS provided 100% funding for the improvements to the Rutherford Yard intermodal facility opened in June 2000.)
- Continue to expand our ITS initiatives, to include such things as multi-state EZ Pass, automatic toll collection to increase traffic flow, improved highway/rail at-grade crossing warning systems and improved highway/freeway traffic and incident management to reduce congestion. (Implementing a \$10 million Capital Budget Act project for the acquisition and installation of constant warning time devices to upgrade and improve safety of highway rail grade crossings in the state. The project requires a 20% match from the participating railroads.)

### **Our Next Steps**

In our view, the issue of transportation system capacity keeping pace with the growth in travel demand is going to continue to be one that will require new planning approaches and innovation. We must continue to expand our knowledge of the capacity needs of the transportation providers and the shippers they serve. In many cases we have reached a point where we can not simply build our way out of the problem – even if the funds were available. We must find new alternatives to plan ways to spread the growing traffic among the capacity available in the different modes and maximize the benefits of multi-modal and intermodal capabilities.

As we took initial steps in changing our planning paradigm to a more all-encompassing approach we found that there were areas where tremendous information gaps existed which affected our planning. Some of those are:

- Just-in-Time patterns and trends.
- Intermodal freight movements.
- Urban goods movement distribution.
- Inland movements of goods moving in foreign trade.
- Travel and tourism requirements, both intercity and international.
- Major new trade corridor flows.

In order to improve our planning efforts and to be more competitive, we have started to take a more global approach. The Freight Movement study was a first step toward filling some of our

information gaps. As information is developed we can then determine transportation issues and opportunities facing Pennsylvania. We are now preparing to do an update of our Comprehensive Rail Freight Study and Rail Plan in 2002. Additionally, we are closely monitoring and coordinating efforts currently being initiated by several MPOs as they address these areas on a regional basis as they update their long range transportation plans.

Our initial efforts of bringing all modes to the table at the regional level needs to be expanded and regional issues considered from a statewide, multi-state and national frame of reference. We have to find innovative means to work with commercial transportation providers to broker private/public funding partnerships to develop mutually beneficial projects to improve their and our competitive position. Several of the regional freight forums in Air Quality non-attainment areas have been successful in getting approval to include CMAQ funded rail freight projects on the MPO TIP.

It remains that our greatest impact as a state transportation department will continue to be in the area of planning and programming highway projects. The National Highway System is the base plate of our national and state transportation system, linking all the other modes together as a workable whole. Highways will continue to receive the greatest amount of public funding and much of the day-to-day public attention. We will need to continue to respond to the highway needs of the traveling public and trucking industry, but in a manner that maximizes the benefits that can be derived from connectivity with the other modes. Access to airports, intermodal terminals, railroad yards and water ports must be fostered and maintained.

## **2. How are private industry and their needs incorporated into decision making for freight transportation improvements? What is successful and what isn't?**

### **Our Current Process**

As noted previously there is an increased awareness and interest in freight transportation and the impacts it has on Pennsylvania's regional and statewide transportation networks and economy. The MPO freight forums and statewide bodies, such as the Rail Freight Advisory Committee, provide the private sector a voice and access to the decision making process. In response to ISTEA planning rules, all planning partners (MPOs, LDDs and independent counties) have encouraged private sector transportation providers to get involved in planning and programming decision making in their geographical areas. Additionally, there is active support outside the Department for addressing freight transportation needs. The shippers and freight carriers are able to provide additional information for consideration by external agencies and gain support for projects from economic development agencies, elected officials, private sector business associations, municipalities, etc. The participation of shippers and railroads, Class I as well as short line and regional railroads, as members of the Rail Freight Advisory Committee has provided a continued opportunity to introduce cross cutting issues and private sector needs into the decision making process.

The Governor's Action Team, the Pennsylvania Department of Community and Economic Development and Team PA (a publicly funded private organization dealing with economic and

industrial development opportunities in Pennsylvania), are all primarily focused on economic development issues in Pennsylvania. These agencies have all been extremely active in working with PennDOT and the Bureau of Rail Freight on freight transportation initiatives affecting the private industry. This support has included close cooperation in the area of water port and waterways development and access issues. The most recent support has been in the development of the Pennsylvania Rail Freight Properties Directory as an economic development tool and a means to promote the use of regional and shortline railroads in Pennsylvania. Economic development is a priority issue in Pennsylvania as is the Department's concern with the continued vitality of Pennsylvania's 70 shortline and regional railroads. The purpose of the Rail Freight Properties Directory is to identify properties located along the regional and shortline railroads in Pennsylvania that have the potential to be rail served. The creation of this Directory was undertaken to promote economic development and to increase the traffic base of the regional and shortline railroads. It has been designed to serve as a marketing tool to attract prospective businesses that are looking to locate or expand their businesses in Pennsylvania. The Directory compliments the directories of the Class I Railroads. The Directory is currently available for review on the Department's web site [www.dot.state.pa.us](http://www.dot.state.pa.us).

The Rail Freight and the Motor Carrier Advisory Committees consistently address the economic affects of freight movements in developing recommended program and policy direction for the Department. The relationships with most of these entities is institutionalized and in many cases based on state statute. Where this is not the case, continued out reach efforts by the Bureau of Rail Freight and others in the Department are taken to maintain and improve the relationship. The Bureau of Rail Freight is in the process of developing a video depicting the role of the Bureau and the importance of rail freight. This month, a university cooperative research project is scheduled to start the development of an Intermodal Coordinator Training Course and Handbook. This training tool will be used initially to train PennDOT District personnel and MPO/LDD/County planning partners about dealing with freight issues and managing freight related projects on a regional basis. It is anticipated that the scope of the use of the material will be expanded to include developing training and information briefings to be given to senior management, partner planning agencies and other governmental departments' personnel to increase the understanding of intermodal, including freight transportation, issues. The Bureau continues to participate in PennDOT's outreach efforts by updating and providing on request a course on rail freight and its local impacts for the local elected and appointed officials of Pennsylvania's 2,600 municipalities. It is our belief that a greater understanding of freight issues by the general public and local officials will serve to increase the ability of private sector freight interests to "make their case" and have an increased voice in the infrastructure decisions affecting them.

**What has not worked?** Trying to maintain status quo. There have been instances where the traditional planning paradigm was applied to the process and freight issues were not adequately addressed by considering input from the private sector freight industry. This resulted in decisions having to be revisited and adjusted to include those previously overlooked freight transportation considerations.

**What has worked?** The establishment of regional freight forums, the state freight related advisory committees, the Bureau and Department participation in state, regional and national

freight symposia addressing public/private freight issues, and being proactive in our outreach programs to solicit input from the private industry regarding their needs. Of particular note is the Pennsylvania Rail Freight Advisory and Keystone Railroad Association Annual Joint Seminar. This event has served as a venue where current rail freight, intermodal, shipper and public private partnering issues can be aired. Attended by public officials, elected officials and a variety of freight interests in addition to rail carriers and suppliers, it has proven to be a particularly effective sounding board presenting freight issues and proposed solutions.

Some other areas where there is close coordination with the private sector include the major issue of the impact on rail service resulting from the breakup of Conrail by CSX and Norfolk Southern. The Bureau of Rail Freight, Ports and Waterways monitors the affects of this acquisition and all rail service complaints received from NS and CSX customers and works closely with the railroads to resolve problems. The Bureau works closely with the Class I carriers, the short line railroads, the Federal Railroad Administration (FRA), the Pennsylvania Public Utilities Commission and the Surface Transportation Board (STB) to resolve safety and service problems. These deliberations and resulting actions all involve participation by private industry and consideration of their needs. In response to potential problems being created on the state's network of shortline and regional railroads, the Bureau of Rail Freight has initiated a Heavy Rail Car (315k/286k) Study to determine the impact of the use of the heavy rail car on the regional and short line's infrastructure. This effort has included a survey of the regional and shortline railroads to obtain information on bridge and track data. The Bureau of Rail Freight is coordinating with Penn State University on this study which is to be completed in December 2000. Based on the results of the study and input received from the railroads regarding the extent of their track and bridge improvement needs, efforts will be initiated to establish a program to assist them in undertaking necessary projects.

**What needs work?** The establishment of a network of Intermodal Coordinators across the state has provided some positive results but has not been consistent in opening the desired level of communication with the private freight interests regionally. Our efforts to reach the public regarding freight transportation issues have not always created the level of awareness to support needed public/private partnering. The Department's involvement and actions in addressing maritime, port and waterways issues affecting our transportation system have tended to be reactive and in need of a higher level of coordination.

### **Our Next Steps**

The Bureau of Rail Freight, Ports and Waterways is attempting to create a greater public understanding of the railroad industry through expanded public outreach. A video and brochure explaining the role of rail freight in Pennsylvania are to be produced next year for release in 2002.

Often the Department has been placed in a position of being "reactive" in accommodating infrastructure requirements generated by freight industry corporate initiatives, such as the development of truck or rail terminals that require connectivity to the NHS. Efforts are being

initiated to work more closely with freight industry corporate strategic planners in an effort to share information.

As the training and a desk reference for regional Intermodal Coordinators are completed it is intended that those personnel will take a more proactive role in direct discussions with the freight industry and shippers in their region. This should allow the private sector another, “closer to home” opportunity to make their needs known and impact the decision making process in the development of freight-related transportation infrastructure improvement plans, programs and projects.

Pennsylvania’s three ports are key transportation assets and have a “seat at the table” at the MPO in their region, but the current state level focus is one of economic development through marketing the ports. There has been limited dialogue at the state level between the port authorities/commissions, terminal operators and the Department regarding freight transportation issues. An initiative has been initiated with PennPorts of the Department of Community and Economic Development to attempt to establish more formal and consistent information sharing. The long-term goal is to develop a mechanism to better incorporate port issues into the overall freight picture at the state level in a more consistent manner.

### **3. What has been your experience with performance measures, what do you use, and what do you think are the most successful approaches to freight performance measures?**

The issue of performance measures is rather complex. PennDOT applies performance measures at a number of different levels to evaluate performance against Department strategic goals, Bureau or Division Objectives or individual performance. Measurements relating to Freight transportation may be identified at all these levels but are not necessarily germane to the context of foregoing discussion in this paper. Rather than attempting to address a myriad of related measures we will attempt to focus on those used to evaluate the benefits of specific rail freight projects, the Department’s *PennDOT Report Card* and those freight-related measures found in the PennPlan.

The use of measurement tools is also an area that, as noted in discussion of the planning and programming processes, is a “work in progress”. The development of the “best” measures for freight transportation is constantly evolving. We have some current practices using some specific measures and are in the process of developing refinements and additional measures. Some other measures have just been identified but have not been fully tested to determine their validity.

### **Our Current Process**

The Rail Freight Assistance Program grants are awarded based on a scoring process that establishes specific criteria that reflect benefits to the Commonwealth. As a part of the process grant recipients agree to report information to the Bureau of Rail Freight, Ports and Waterways, which is used as part of the measure to evaluate the value of the freight rail project. Other performance-related information is collected by Bureau staff over time and periodically analyzed

to determine trend information that is also used as a performance indicator.

The following criteria are used for in the evaluation of each application.

- (1) Railroad transportation benefits:
  - Improvement in the level of service provided.
  - Railroad operating ratio.
  - Annual increase in the number of rail cars.
  - Condition of track.
  - Commodity movements.
  - Number of rail users served by project site.
- (2) Rail user (user/receiver) transportation benefits:
  - Impact on transportation cost.
  - Annual increase in the volume of rail traffic.
  - Condition of track.
  - Commodity movements.
- (3) Transportation system benefits:
  - Intermodal usage.
  - Number of additional trucks the project removes from the roads on a yearly basis.
  - Rail system enhancements.
- (4) Economic growth benefits:
  - Job creation.
  - Job retention.
  - Distressed community or enterprise zone.
- (5) Financial considerations:
  - Status of previous funding.
  - Past project performance.
  - Readiness of project for implementation.

The input received for each of the above areas is compared to that submitted by an applicant in any subsequent applications and provides a series of measures that reflect economic benefits derived from projects, such as job retention, job creation or any changes in the number of rail served businesses.

Specific measurements tracked are the level of car loadings generated by the project. A base line number of cars expected to be handled is established and the grant recipient is required to submit a report of actual performance each year for five years after the first full year following the completion of the project. This has been a particularly useful measure and provides the basis for extrapolating truck traffic mitigation, job retention and economic results.

Service complaint data is compiled and analyzed quarterly and annually to develop performance trends. This performance measure process is currently being refined to further improve potential utility in evaluating the value of a project.

The Department's *PennDOT Report Card* provides a monthly report of the status of one of a number of transportation products and services performance measures. In the freight transportation area, the June 2000 *PennDOT Report Card* addressed the Department's performance in improving safety at highway rail at-grade crossings. The report reflects the statewide accident rates from 1992 to 1999 compared with federal funds programmed for the highway rail grade crossing program statewide.

In addition to specific rail freight project performance measures the PennPlan provides a number of freight-related measures to be used to support the long range plan objectives. Some freight-related items are as follows:

- Reduce the number of fatalities involving heavy trucks by 15% by 2004
- In cooperation with commercial railroads develop 100% double stack clearance in all strategic freight rail corridors by July 31, 2003.
- Develop and adopt a state airport system plan (which includes air freight issues) by December 31, 2001.
- Support timely completion of port channel maintenance projects so that impediments to freight shipping are eliminated by 2007.
- Provide satisfactory access to all rail intermodal facilities by December 31, 2010.
- In cooperation with private rail interests invest in and complete signal upgrade projects in strategic rail corridors by 2010.
- Eliminate at-grade crossings in strategic rail corridors by July 31, 2015.

### **Our Next Steps**

As the Corridor Needs Study effort is undertaken, it is expected that added "corridor specific" freight transportation information and measurement tools can be identified. Such items as changes in average truck and freight rail train speeds resulting from improvement projects, ITS applications and other investments, for example.

Similarly, it is anticipated that the 2002 update of the Pennsylvania Comprehensive Rail Freight Study will provide some added insights into better ways to obtain and analyze rail freight data and develop more refined performance measures reflecting public benefits derived from rail freight projects.

### **Closing**

Addressing freight transportation issues is a concern of growing proportions in Pennsylvania. As noted at the outset of this discussion our current policies, plans and programming have evolved over the past 20 years, driven in large part by a series of defining events. It is recognized that the way we address freight transportation, multi-modal and intermodal issues in our transportation improvements programs must continue to be refined.



Freight shippers are major transportation users and vital to the nation's economic competitiveness. Moving freight in and out of U.S. seaports will grow about 6 percent annually and double or triple in total volume by 2020. The current surface transportation network does not allow freight to move easily between highway, rail, air, and maritime transport. In addition, the public sector often does not understand the needs and problems of moving freight nationally or regionally. Freight and intermodal problems require more attention by transportation agencies, particularly in statewide planning. Freight stakeholders must become full partners in statewide, metropolitan and rural planning. Facilitating freight users' and suppliers' involvement will enhance the nation's ability to move freight seamlessly across different transportation systems

Our planning efforts must consider the continued expansion of interstate trade corridors between and into our metropolitan areas that serve our international trading needs and extend our international competitiveness. Major choke points at our ports of entry and in and around metropolitan areas need to be addressed.

In this vein we are possibly facing our next "defining moment" in freight transportation with the federal reauthorization of the Surface Transportation Board, legislation to create an alternative funding source for the Harbor Maintenance Tax, and perhaps most importantly the reauthorization of TEA-21 by October 1, 2003. There is the need for public/private partnering in the development of legislative initiatives and proposals for the Congress to consider regarding freight transportation needs and programs. Freight transportation needs must be addressed in terms of dedicated funding streams, eligibility requirements for Federal Highway Administration programmatic funding, continued eligibility for discretionary program funding such as the Borders and Corridors Program and added flexibility in the establishment of public/private partnerships. Bigger trucks and heavier rail car issues and impacts need to be carefully addressed and decisions made regarding how fragile state highway and rail infrastructure can be maintained and still accommodate larger vehicles as a means to increase freight capacity. The possible establishment of freight corridor programs and multi-modal funding options should be considered.

Whatever the arguments made or approaches taken in shaping our individual positions on the reauthorization of TEA-21, it is essential that freight transportation issues be a key, ever present discussion point. If we are to be competitive internationally and provide the transportation infrastructure that will be necessary to accommodate the projected vast increases in the volumes of freight to be shipped in the future we must find a way to take a multi-modal approach to transportation planning, programming and project development.